APRIL/MAY 2025

23PCS22 — ADVANCED OPERATING SYSTEMS

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. List the main advantages of Multiprocessor Systems.

2. Define the term Deadlock Prevention.

3. What are the four major reasons for building Distributed Systems?

4. List down the features of Network File System.

5. Differentiate between General-Purpose Operating System and Real-Time Operating System.

6. State the use of Inter Task Communication.

7. Name the types of Handheld OS.

8. What are the advantages of Handheld System?

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9. Mention any two features of Linux File System.

10. State the importance of Scheduling.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Illustrate the components of a Desktop System.

Or

(b) Give a detailed description about Deadlock and its Characterization.

12. (a) Explain the Lamport's Logical Clocks with its merits and demerits.

Or

(b) Describe the basic ideas of Sun Network File System.

13. (a) Enumerate the Characteristics of Real Time System.

Or

(b) With a neat sketch, explain the basic Model of Real Time System.

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14. (a) Explicate the Special Constraints and Requirements of Handheld Operating Systems.

Or

(b) Illustrate the Structure of Symbian Operating System.

15. (a) Explicate the Components of Linux System.

Or

(b) Expound the Architecture of iOS.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explicate the various Operations on Processes in detail.

17. Explain the design issues of Distributed File Systems in detail.

18. Discuss about the Real Time Task Scheduling in detail.

19. Illustrate the Architecture of Android.

20. Describe the significances of Memory Management in Linux OS.

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